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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/287,307	04/07/1999	NORMAN K. SPROCH	0268P0342	6152

7590 09/18/2002

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EXAMINER

PHAN, THAI Q

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 09/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Handwritten signature

Office Action Summary

Application No.
09/287,307

Applicant(s)
Norman K. Sproch

Examiner
Thai Phan

Art Unit
2123



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sept. 04, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

DETAILED ACTION

This Office Action is in response to applicant's response and Declaration filed on Sept. 04, 2002 to the related patent application S/N: 09/287,307. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. Claims 1-18 are pending in this official action.

Drawings

1. The drawings filed 04/07/99 are objected to by the draftsman (attached PTO Form 948).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Dunkel, patent no. 5,572,125.

As per claim 1, Dunkel discloses a method and system for analyzing and correcting simulation data to best fit to experimental data substantially similar to the claimed invention (Abstract and Summary of the Invention). According to Dunkel, the method includes steps of mixing molecules to form a mixed solution of complex molecules for analysis, performing electrospray ionization mass spectrometry to obtain spectroscopic data of the molecule complexes (Summary of the Invention, cols. 15-19, col. 33, lines 56-67, col. 29, lines 1-12), and repeating the procedure steps above if necessarily in order to obtain a good resolution for characterizing 3-D structure molecules (cols. 15-19, col. 20, lines 24-39, cols. 21-22, col. 25, lines 17-39, col. 26, lines 29-44, for example).

As per claim 2, Dunkel anticipated computerized data processing system including plurality of means for performing steps, such as processing means for computing error data, phase shift data, etc., memory for storing computation results, as claimed (cols. 21-22, 25, 26, and 32-33). Dunkel also anticipates simulating the model to predict error and correct the model using feedback loop as claimed (col. 33, line 56 to col. 36, line 10) .

As per claims 3-6, Dunkel anticipates a variety of complex molecules such as cholesterol, proteins and protein complex structures, etc. as claimed.

As per claim 7, Dunkel discloses a method and system for analyzing and correcting simulation data to best fit to experimental data substantially similar to the claimed invention (Abstract and Summary of the Invention). According to Dunkel, the method includes steps of

mixing molecules to form a mixed solution of complex molecules for analysis, performing electrospray ionization mass spectrometry to obtain spectroscopic data of the molecule complexes (Summary of the Invention, cols. 15-19, col. 33, lines 56-67, col. 29, lines 1-12), Dunkel also anticipates bonding strength based on spectroscopic data in simulation model (col. 20, lines 40-63, col. 26, lines 29-45, col. 28, lines 56-67, for example) which would include bonding strength, bond energy, etc. as known for those skilled in the spectroscopy analysis. Dunkel also anticipates data model being corrected to improve a selected residue on the molecule, and repeating the procedure steps above if necessarily in order to obtain a good resolution for characterizing 3-D structure molecules (cols. 15-19, col. 20, lines 24-39, cols. 21-22, col. 25, lines 17-39, for example).

As per claim 8, due to the similarity of claim 8 to claim 2, claim 8 is also rejected under the same rationales as set forth..

As per claims 9-15, Dunkel anticipates complex molecules under spectroscopy analysis and simulation method using such data model to predict complex structures of the molecules. They would include a list of molecules as claimed.

As per claim 16, Dunkel anticipates bonding strength or binding energy of complex molecules such energy required to create a bond which would inherently include heat of formation in the complex large molecules as claimed.

As per claims 17-18, Dunkel discloses a plurality of complex molecules which would include and not limited to the claimed invention.

Response to Arguments

4. Applicant's arguments filed Sept. 05, 2002 have been fully considered but they are moot in view of a new ground of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Phan whose telephone number is (703) 305-3812.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 746-7238, (for Formal communications),


Or:

(703) 746-7239 (for Unofficial Fax communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

September 11, 2002


KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER